If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, John J. Gresens (Reg. No. 33,112), at (612) 371.5265.

Respectfully submitted,

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By [signature]
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JJG/tvm

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--CLAIM 1--

3. Encoding method according to [one of the claims 1 and 2], characterized in that it enables access to several levels of encoding quality, corresponding to each of said successive meshes.

--CLAIM 1--

4. Encoding method according to [any of the claims 1 to 3], characterized in that said successive meshes are obtained by the implementation of a recursive algorithm.

--CLAIM 1--

5. Encoding method according to [any of the claims 1 to 4], characterized in that said recursive algorithm comprises the following steps:

(a) the reception (31) of a wavelet coefficient indexed by a vertex (s) of barycentric coordinates (α,β,γ) on a face F_0;

(b) for each neighboring face F_j of F_0 containing said vertices (s):

- $F = F_i$ is supposed;
- from the barycentric coordinates (α,β,γ), the coordinates of said vertex (s) in the refined base (42) formed by the vertices of the face F, also referenced (α,β,γ) are deduced;
- if the coordinates α, β or γ are positive or zero and if two of them are strictly positive (43):
  - the face F (45) is subdived;
  - the processing of the step (b) is resumed for the four offspring of the face F successively

8. Application of the encoding method according to any of the claims 1 to 5 to at least one of the following fields:

- the display of meshed objects in a 3D screen;
- the progressive display of meshed objects in three dimensions on a screen, said wavelet coefficients being taken into account as and when they arrive;
- the display of meshed objects in three dimensions on a screen with at least two levels of detail, one level of detail corresponding to one of said successive meshes (M_i);
- the display of different parts of a meshed object with at least two different levels of detail;
- the compression of a mesh of a meshed object.